

# Program Summary Sheet

## TOWED ARTILLERY DIGITIZATION

PEO/DSA: GCS

Incumbent: Raymond H. Nulk

FY: 03

Rotation Date: Jul 03

### Other Significant Command Information

#### **1a. Significant Congressional, Office of the Secretary of Defense, and/or Army Interest:**

Special interest development program since FY94. Initial Advanced Towed Cannon System(ATCAS)tech-base program received Congressional enhancement and Army/Marine Corps tech-base funds to develop automated fire control technology demonstrator for use in Army/Marine Corps warfighting experiments in FY95/96. Successfully validated LW155/TAD joint operational requirements, supported additional Army funding to develop more mature demonstrator for participation in Rapid Force Projection Initiative in FY98, extended user evaluation in FY99-00. Program received FY99 Congressional enhancement to allow LW155/TAD EMD start in early FY00 better aligning development of digitization suite with Marine Corps LW155 procurement.Army will fund RDTE of objective TAD in FY00-03 for Army/USMC.Each service has budgeted to procure and outfit all LW155 howitzers with the digitization.

#### **b. Significant Impact on Military Posture and Readiness:**

Combination of smaller,lighter weight howitzer along with benefits of digital fire control/automation will dramatically improve future towed howitzer survivability,responsiveness,accuracy,lethality, combat reliability and provide light artillery a semi-autonomous capability currently found only in self-propelled howitzers. LW155 will meet all M198 requirements while reducing weight from 16,000 to 9,000 lbs. Allows faster emplacement/displacement times and allows tactical lift by MV-22 and UH-60. LW155/TAD's smaller size significantly reduces strategic lift requirements, includes howitzer self-location,directional control,processing of muzzle velocity,digital direct fire capability,ammunition management,digital,voice communication,on-board power supply/computation of firing data.Digitized LW155 howitzer will eliminate crew's reliance on field artillery survey personnel,aiming circles,aiming posts,collimators. Enhancements will be designed for current/developmental towed howitzers in light forces inventory.

#### **c. Extensive Interdepartmental, National, or International Coordination:**

As joint program between Army/Marine Corps attracted interest/funding from United Kingdom and Italian Ministries of Defense. Both UK/Australia have expressed interest and possible future procurement. UK interested in potential to leverage related UK development programs. Program has significant capacity for foreign cooperative development and foreign military sales. Program requires extensive coordination with other PMs (Crusader,Paladin,Mortar Fire Control System,FMTV,MTVR,AFATDS,GPS,SINCGARS and others) to ensure compatibility with/maximum reuse of existing hardware and software while meeting unique needs of the light forces in both Services.

#### **d. Unusual Organizational Complexity, Technological Advancement or Interface Control:**

Due to severe operating conditions of towed howitzer compared to self-propelled artillery,space/weight limitations,system will be a more technologically advanced system than currently fielded or commercially available. Incorporates extensive use of titanium,automatic primer feed system,suspension system,both new to US towed howitzers. Extensive use is being made of contractor logistic support for repair parts supply.System software must interface with numerous ancillary devices;hardware must be repairable,modular,to facilitate replacement at lowest level. State-of-the-art

miniaturization/consolidation of components required to meet physical constraints of objective platforms. Unique requirements of system, horizontal technology integration and compatibility with related fire support and ADP systems are major objectives.

**e. Unusual Difficulties Requiring Centralized Management:**

LW155/TAD will interface with various related fire support and C4I systems, such as AFATDS, SINCGARS, and GPS. The TAD technology is also intended for use on all other current and future towed howitzer platforms. The LW155 howitzer program is an international effort involving both the United Kingdom and Italian Ministries of Defense (MOD) in the development of the next generation towed artillery system.

**2. Systems currently managed by the PM:**

LW155/TAD PM will manage all activities in the design, development, integration, testing and production planning of TAD for all towed howitzer platforms.